BK BIRLA CENTRE FOR EDUCATION

SARALA BIRLA GROUP OF SCHOOLS
SENIOR SECONDARYCO-ED DAY CUM BOYS' RESIDENTIAL SCHOOL
PERIODIC TEST-2 (2024-25)
MATHEMATICS (041) QUESTION PAPER

Class : VII
Date : 12.2024
Admission No.:

Duration: 1 Hrs.
Max. Marks: 25
Roll No.:

General Instructions:
Questions 1 to 5 are 1 mark each.
Questions 6 to 9 are of 2 marks each.
Questions 10 and 13 are of 3 marks each.

SECTION-A (5 × 1 = 5)

Choose the correct answer.

1) The value of $(-1)^{75}$ is

a) 0 b) 1 c) − 1 d) None of these

2) The exponential form of 125 is

a) 5^3 b) 5^4 c) 5^2 d) None of these

3) If $2^3 \times 2^4 = 2^X$ Then X =?

a) 3 b) 7 c) 1 d) 4

4) The area of parallelogram is

a) height × height b) base × height c) base + height d) base × base

5) Find the area of a triangle with a base of 20 cm and a height of 30 cm.

a) 300 b) 600 c)100 d) 400

SECTION- B (4 × 2 = 8)

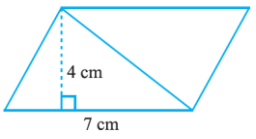
6) Simplify: $8^7 \div 8^5$

7) Express the number appearing in the following statements in standard form.

(a) The distance between Earth and Moon is 345,000,000 m.

(b) Speed of light in vacuum is 300,000,000 m/s.

8) Find the area of each of the following parallelograms:



9) Find the area of the circles of radius28 cm. (Take $\pi = \frac{22}{7}$)

SECTION- C $(4 \times 3 = 12)$

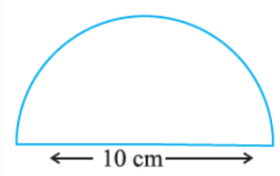
10) . Simplify and express each of the following in exponential form:

$$\frac{3\times7^2\times11^8}{21\times11^3}$$

11) Using laws of exponents, simplify and write the answer in exponential form:

a) $(2^{20} \div 2^{15}) \times 2^3$ b) $(3^4)^3$

12) Find the perimeter of the adjoining figure, which is a semicircle, including its diameter.

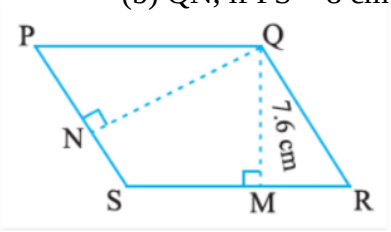


13) A gardener wants to fence a circular garden of diameter 21m. Find the length of the rope he needs to purchase, if he makes 2 rounds of the fence. Also, find the cost of the rope, if it costs Rs 4 per meter.(Take $\pi = 22/7$)

OR

PQRS is a parallelogram. QM is the height from Q to SR, and QN is the height from Q to PS. If SR = 12 cm and QM = 7.6 cm. Find:

(a) The area of the parallelogram PQRS (b) QN, if PS = 8 cm



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